

# COMMON SCHOOL ASSISTANT, AND PUBLIC INSTRUCTOR.

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*Edited by J. Orville Taylor.*

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From the well-known character and abilities of the Editor of this Paper, and the vital importance of the cause it advocates, we hope that every citizen will consider it his duty to aid in giving the "Common School Assistant" a circulation in every family and school in the Union.

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## COMMON SCHOOL ASSISTANT.

### TO THE PUBLIC.

✂ This paper will be issued, hereafter, in the city of New-York, from the Rooms of the "American Common School Union," 128 Fulton-street. All communications and subscriptions for the paper must be sent, post paid, to New-York city.

### TO SUBSCRIBERS.

✂ 1. The present number completes the second volume of this paper, and subscribers will not expect the third volume till they remit us payment for the same. Each number of this paper, hereafter, will be sewed, and the leaves, also, will be cut open. In addition to this improvement, the paper will be printed on an improved type.

2. The first number of next year (January No.) will contain two engravings in contrast with each other; one of them an "OLD SCHOOL-HOUSE," with every thing about it *wrong and ludicrous*; and the other a "MODEL SCHOOL-HOUSE," with every thing in connection as it should be.

3. The character of the coming third volume will be like the present number. The paper should be read at home, and by the reading classes in school. Every school should have at least 11 copies, so as to make a class of this number. We do not know of any thing that will give so much interest and utility to the schools as a paper rightly conducted on the plan we now propose.

## NEWS OF THE DAY.

1. This chapter is necessarily omitted in the present number. We regret this, for the News Chapter will be one of great interest to schools and families. The present number throughout, in fact, has, from peculiar circumstances, been so hurried, that it is not a fair specimen of what the paper will be in its different departments, during the coming year. We confidently believe that this paper, with its present plan, can be made the pupil's and the fireside's most desired friend. We ask our patrons, however, to read this number *through*, and to send it to the school, that a class may be formed while the schools are opening for the winter.

## LAWS OF THE UNITED STATES.

### No. I.

1. *Fourth Instalment.*—The most important laws passed by the "Special Session" of congress are the following: The first relates to the surplus revenue—a sum of money lying in the treasury, and not required by the expenses of the government. This money was obtained by taxes on merchandize brought from foreign countries—by selling new land in the west, &c.

2. On the 23d of June, 1836, congress agreed to divide this money among the states, according to their number of inhabitants. The people have already received three-fourths of the sum, and the remaining one-fourth was, according to the original law, to be paid next January.

3. But the "Special Session" of congress has said that the remaining fourth part *shall not be paid till a year from next January*—till 1839. This was one of the laws, or Acts as they are called.

4. *Treasury Notes.*—The next Act of importance was that which authorized the United States Treasurer to issue "Treasury Notes." This law was made to furnish money for the treasury, which had not the means of paying the necessary expenses of the government.

5. Those who owed the government had not paid their debts, and money must be had to pay the government creditors. So, instead of crowding the debtors, or directly borrowing money, the government made ten

millions of dollars—that is, told the Treasurer to issue that amount of bills, which are to pass as money like bank bills.

6. These "Treasury Notes" are signed by the Treasurer and the Register of the Treasury. They are not to be of a less sum than \$50, and they are to be redeemed by the Treasurer in one year after they are issued. They are to draw such interest as the Treasurer and President may fix, not exceeding six per cent a year.

7. The Treasurer is authorized to pay these notes as money to those the government may owe, and such other persons as may choose to receive them in payment. Whoever owes the government, or wishes to buy any thing of the government, can pay these notes back as money—and receive interest on them during the time they have been issued.

8. By the time the government is obliged to redeem these notes, (one year after they are issued,) it will get its pay from those who owe it, and thus will be able to buy in the notes with gold and silver.

9. *Indian War.*—The Indians in Florida and the vicinity have so conducted, as to make it necessary for the United States, to send a military force to prevent or stop them from doing farther wrongs. These efforts are attended with much expense, and to meet this, congress passed a law, making an additional appropriation of one million six hundred thousand dollars.

10. *On Duty Bonds.*—When a person brings goods from a foreign country into the United States, he is required to pay to the general government, that is, to pay to the United States Treasury, more or less money, according to the species of goods he brings in. We call such payment *duties*. Importers, men who make it their business to supply our market with things raised or made in other countries, are, from the nature of their trade, constantly paying duties to the government.

11. When they do not pay down they give securities, or "*bonds*," to ensure future payment. Many importers and merchants are now in debt to the government for duties not paid, and they have, as required by law, given "*bonds*."

12. These bonds they can not pay, not having been able to sell their goods; and hence congress has said the payment may be extended to nine months from the time the bond was given. This postponement of the payments of these bonds was one of the laws of the special session. It gives relief to the merchants and importers.

13. *Deposit Banks.*—The government has usually let its surplus money—money it did not want to use immediately—remain, till required, in several of the banks in different parts of the country. These banks are called Deposit Banks. But the last session made it obligatory on the Treasurer to withdraw, as fast as practicable, the United States funds deposited in these banks.

14. And for the present, at least, no more deposits will be made in them by the government. The foregoing are the most important laws of the "Special Session," and these should be read and understood by every citizen. Next winter, when congress and the legislatures are in session, we shall be able to make this part of our paper interesting and useful.

#### COMMON SCHOOLS.—No. I.

1. Within a few years, there has been a great improvement in the situation and structure of our jails and poor-houses. The inmates of these places of confinement and charity, are now made comfortable, in comparison, to what they were 15 or 20 years ago, when they were struck off at auction to the lowest bidder.

2. Many of our readers can remember when the town pauper was kept by that man who would charge the least, and who, naturally, would not expend much in his keeping. But now this victim of poverty, and probably of disease, is well provided for in a mansion of a building, and by kind liberal friends.

3. Our jails, too, are now well ventilated, light, warm, and airy. These buildings are models of architecture. We seem to have rivalled each other in making these places of punishment beautiful and comfortable. This is all right.

4. But have we bestowed the same attention on our district school-houses? While we have been sympathizing with, and laboring for, the jail, have we not forgotten the hard seat, without a foot-hold or a back piece, the foul air the children were breathing, and the noisy, demoralizing location of the school-house? And do we not knock off the schools to the lowest bidder in many in-

stances? The man that will teach the cheapest is our best teacher.

5. There are many honorable exceptions to this short-sighted parsimony, for in our state this paper has circulated during the past year 80,000 numbers, and better teachers and school-houses and books are demanded by more than half of the districts in the state. Men are qualifying themselves to teach, and districts are offering such wages to teachers as will justify this qualification.

6. All this presages better times and a better state of things, in some districts, and in some whole towns. But take the people generally, and we find among them much indifference to this vital subject—their children's education.

7. During the past year we have employed 47 permanent agents to deliver lectures, besides many that were temporary, and circulated 180,000 numbers of this paper. This effort has cost us \$2331 more than our receipts. The whole of which the editor has, it is feared, to pay from his own pocket.

8. He was assured by several men, that all deficiencies would be paid him, but the change in the times has prevented benevolent men from doing what they designed, and would be glad to do, if it was possible. But we are not disheartened, and shall go on with increased effort. We intend to give this enterprise a fair trial, firmly believing that support will, in the end, be extended to us.

9. Now, we have no other reliance (nor had we for the past year) than the income of the paper, and the works on education we publish. If the friends of education are disposed to let this effort fall on one or two individuals, there will be injustice done. We expect otherwise.

10. Every man, who can furnish means to subscribe for the paper, or buy a school book of an improved character, we believe is disposed to aid us, and will act out his disposition. Time will tell whether that which is of momentous importance can be paid for or not. *The result will depend upon the decision and action of each individual.*

11. To make our paper still more acceptable and useful, we have promised in the future volume an amount of labor which but few can estimate. To make all these subjects *attractive, practical, and intelligible*, will demand much thought and close attention. This we will give. It rests with each individual in the community to sustain the effort.

#### COMMON SCHOOLS.—No. II.

1. It is very easy to detect and ferret out evils and abuses, but not so easy to devise a remedy for them. What then must be done to remedy those of which we have been speaking? The public mind must be awakened from its present lethargy, not to say stupidity, in regard to these schools. The people want light upon this subject. They need stirring up.

2. And meetings frequent, *if not protracted*, should be held to excite them respecting it. They must be brought to see, and scan and measure their vast importance to themselves, their posterity, society and the republic under which they are living so happy and so free. Let it be placed before them in all its height, and length and breath.

3. Let them see and feel what their best good requires at their hand, and they will do it in all good earnest. They will make wise and generous provision for their support—enlarge the circle of studies in them—provide the best books extant—furnish apparatus—and procure competent instructors.

4. But how shall this be done—how can we reach the people, and enlist them in this good cause? We must individually do all we can to disseminate knowledge, introduce and circulate publications that treat of popular education, and exercise our utmost influence to improve the district schools. But we cannot be successful unaided and alone.

5. In every school district and town, it must have auxiliary societies acting in unison with it. To organize them will be the peculiar study, as it will no doubt, be the pleasure, of instructors and the members of the society. Each instructor should get up a society in the district where he teaches, composed of himself, such other members as reside in it, his scholars, other young persons, their parents and all who are disposed to join.

6. He should procure an apparatus, and induce the district, or society to buy it. The meetings should be held once in two weeks or oftener—when a lecture should be read on the design of public schools, their bearing upon the happiness and prosperity of the people and the country. Methods of instruction—qualifications of instructors—books to be used and studies to be pursued in them.

7. There should be exercises also connected with the studies of the scholars, and illustrations and explanations made with the apparatus. In addition to this there should

be in each town a town society, consisting of the members of all the district societies. It should meet in each district as often as once or twice during the season, and have a general meeting towards the close of the schools.

8. When each district society should make a report of the instruction, books, studies and progress of the scholars in each school, and of such other facts as may be judged important. A condensed report should be made up of them, with statements of the amount of money raised for the support of schools in each town, and presented to the county society at its annual meeting.

9. In this way a complete system of statistics in relation to these schools could be compiled with ease. A map of their condition exposing at once their defects, would be spread out; and measures could be readily suggested and adopted to remove them.

10. Besides the action of these district and town societies would be very salutary upon teachers and scholars. The merits of each teacher, the proficiency of the scholars would be compared together and tested. They would constitute a fiery ordeal to try the qualifications of instructors from which the incompetent would shrink with fear or depart with disgrace. They would be stimulated with a laudable emulation to excel and distinguish themselves—the former in teaching and the latter in learning.

11. The feelings of people in general would become interested. They would attend and encourage the meetings. They would soon duly appreciate the value of these schools. They would cherish an honest pride in them, and foster and nourish them as their peculiar institutions—as the main pillars of their own and their country's happiness and independence.

12. This plan is as feasible as it is useful in its execution. It will require but the moderate exertion and co-operation of the teachers to form and keep alive the district and town societies. It would occupy but little of their time, and that little very profitably to themselves and others. It opens a wide field for usefulness, in which they should delight to labor.

13. I pity, indeed, that man who would refuse or hesitate to render this trifling service in the cause of education. His mind must be sluggish with such indolence, or absorbed with such selfish ambition as will make him either *useless* or *dangerous* to the community. Benevolent undertakings move slow at first. It needs a great deal of wisdom, hope and patience, of enthusiasm, firm-

ness and energy to carry them into successful operation.—A. Sanborn.

#### STRONG APPROVAL.

1. We have debated some time whether we ought to publish the following letter or not, as it was sent to us without any permission, directly, to make it public. We trust, however, Mr. Livingston will pardon us the publicity of his excellent communication. We assure you, Dear Sir, that it has encouraged us much.

Delhi, Nov. 1st, 1837.

2. MR. EDITOR—Sir—Your plan for the third volume of the "Common School Assistant" is excellent. It is what our schools, teachers, and children have long been asking for, though they did not know exactly what was wanting, or how to supply the want.

3. But when your plan came before us—a plan that brings the children *during their school hours* in direct connexion with the delightful thoughts and applications of science, with the stirring labors of manhood, and the thrilling interests in the events of every day life—it put into form exactly what we wished.

4. The child now, with your paper, can read in his school the news of the outer-world, and learn what his cotemporaries and his institutions, and society generally, are doing; and, also what will be expected of him when he shall enlist in the strife of manhood.

5. I repeat it, sir, your paper will do more to give interest to the school, pleasure to the scholars, utility to their studies, than all that has been done for years. It is strange that such a plan has never been generally adopted before this.

6. In a few places the newspaper has been made a reading book, and with the most entire success; but the schools generally have not thought of any other mode of giving enjoyment and benefit to the scholars than the old way of reading books the children never understand.

7. And I regard your efforts with stronger assurance of success as you have the means, of making every school acquainted with its true interests, and of giving it the means of adopting this desirable plan. Let the scholars take your paper and read it in school, *in class*, and if they do not find their labors sweetened and profitable, nothing else will give interest.

8. They will read the news of the day, the laws that may be passed, the sciences that make labor delightful and profitable, and the arts that adorn and beautify life. The school that has a class in your paper will

take the advantage of the one that neglects the opportunity.

9. In conclusion, sir, I am confident that you have the right plan for elevating the schools, and I hope you may be seconded by every well wisher of his fellow men and of his country.

Yours sincerely,

H. LIVINGSTON.

J. ORVILLE TAYLOR.

#### TO THE PUBLIC.

1. The individuals conducting this paper and the enterprize of improving Common Schools generally have considered it advisable to open an "American Common School Union" in the city of New-York. In their rooms may be found the improvements in education from this and foreign countries.

2. Some large central place in which may be seen and obtained at once, whatever relates to the great subject of the "People's Education" is now much wanted. It is believed that such an establishment as this, rightly conducted, will do much to advance the cause of Common Schools. The "American Common School Union" will be opened the 5th of this month in the large beautiful building 128 Fulton-street, New-York.

#### POLITICAL ECONOMY.

1. "But why should not each man make what he wants for himself, without going to his neighbor's to buy it?"

Go into the shoemaker's shop, and ask him why he does not make tables and chairs for himself, and hats, and coats, and every thing he wants. He will tell you that he must have a complete set of joiner's tools to make *one* chair properly; the same tools as would serve to make hundreds of chairs. And if he were also to make the tools himself, and the nails, he would want a smith's forge, and anvil and hammer.

2. And after all, it would cost him great labor to make very clumsy tools and chairs, because he has not been used to that kind of work. It would be less trouble to him to make shoes that would sell for as much as would buy a dozen chairs, than to make one chair himself.

3. To the joiner again, it would be as great a loss to attempt making shoes for himself. And so it is with the tailor, the hatter, and all other trades. It is best for all, that each should work in his own way, and supply his neighbors, while they supply him.

4. But there are some rude nations who have very little of this kind of exchange. Each man among them builds himself a cabin, and makes clothes for himself, and a canoe to go a-fishing, and fishing-rod and



hooks, and lines, and also darts and bows and arrows for hunting, besides tilling a little bit of land. Such people are all of them much worse off than the poor among us.

5. Their clothing is nothing but coarse mats or raw hides; their cabins are no better than pig-sties; their canoes are only hollow trees, or baskets made of bark; and all their tools are clumsy. Where every man does every thing for himself, every thing is badly done; and a few hundreds of these savages will be half-starved in a country that would maintain as many thousands of us in much greater comfort."—*Whately*.

6. The reason is, that with us one man works principally at one thing, and thus becomes skilful, so that he can do more in the same time. If the shoemaker was to work half his time as a hatter, and the hatter as a shoemaker, there would be fewer hats and fewer shoes made than before, and besides that, not so good.

7. In changing from one work to the other they would lose time in looking for their tools, and getting things into order; and after they began to work, some more time would be lost before they could "get their hands in," as it is termed, so as to work to advantage.

8. Now, what is true of the shoemaker and the hatter, is equally true of all other trades. If their employments were mixed up, less would be made of every article; and thus every one would necessarily be poorer, because there would be less to be divided among them.

9. There is another reason. People would be less industrious: they would not only work to less advantage, but they would work less steadily. This may be easily seen by comparing a country blacksmith, for instance, who has a great many different things to attend to, with one in the city, who works only at one.

10. In proportion as men confine their attention to one operation, they become more *industrious*, that is, they work more steadily; and more *skilful*, so that they do more in the same time; and lastly, more *ingenious* in finding out inventions to save time and trouble.

11. As an instance of this I would mention that it was a little boy who many years ago made one of the greatest improvements in the steam engine; for having nothing to do but to open and shut a valve at a particular motion of the engine, he observed that by tying two strings to particular parts of the machine, it would open and shut itself; he did so, and thus all further trouble was saved.

12. In our back country it is necessary for a settler to turn his hand to a great many things; but in the cities and older parts of our country it is more profitable for a workman to keep at one employment, and get what he wants from others by giving what he makes better than they can, in exchange for what they make better than he.

#### SOCIAL MORALS.—No. I.

1. We sometimes see neighbors trying to make each other unhappy, by inquiring into what is not their business, by telling stories about each other, and by enlarging and spreading about every fault they can find in gossiping from house to house. One tale-bearer can make a world of misery in any neighborhood.

2. Now, it is our duty to tell the truth and keep peace with all men. We should study to prevent neighborhood scandal as much as possible, instead of being willing and ready to tell it again to the first person we meet with. Let us always do what is right, and when others do what is wrong, do not be ready to trumpet it about for our own amusement, or another's injury.

3. If a man is unhappy from sickness, or age, or poverty, it is our duty to relieve him. But a wicked man is unhappy in the worst sense; for there is no misery so great as wrong doing. And still more, he is always the cause of wickedness in others. He is like a man sick with some infectious disease, which he is in danger of communicating to all that are around him. And still more, the pains of this life terminate at death, but the pains of wrong doing, at death, are infinitely increased.

4. Now, all these considerations teach us, that a wicked man, is, above all others, an object of pity. And hence, it is our special duty, to try to benefit him, by rendering him virtuous.

5. Many people say that if a man be wicked, we should shun him and let him alone. This is true, in one sense. We should not make him our companion, we should not put ourselves in danger of learning his wicked habits. If a man is a drunkard, we should not go and drink with him; if a man is profane, we should not associate with him.

6. All this is so; but this is no reason why we should not try to reclaim the drunkard, and teach the profane person to fear an oath. It is one thing, to adopt men as our friends and associates, and another thing to try to do them good.

The duties which we owe to men who are wicked, are the following.

7. I. We should consider them, when in

affliction or distress, to be as truly objects of our pity as other men. That we should *feel as much pleasure* in relieving them, as in relieving the virtuous, is perhaps impossible. But this does not show, that it is *not as much our duty to do so*.

II. We should by all means in our power, labor to reclaim them from vice.

This may be done:

8. I. By example. By acting virtuously ourselves, we administer the kindest, and frequently the most effectual reproof to the vicious. If we are in their company, therefore, we should always resolutely show, that we are on the side of virtue, and have no sympathy with vice. Though they may ridicule us, and dislike us, yet love to them, should teach us to bear this, patiently, for their good.

9. II. By precept. We should, by suitable conversation, endeavor to convince men of the evil of their course, and urge and encourage them to return to virtue. Advice of this sort, is generally, vastly more effective, if given in private.

10. III. As the truths of morality are, by far, the most efficient agents in restoring men to virtue, we should use all proper means to circulate them among men, not only by conversation, but also by the distribution of excellent books.

11. IV. As all men are our brethren, and all men need moral assistance, it is, manifestly, our imperative duty to reclaim the wicked, as widely as possible. As, by far the greater part of men, are utterly ignorant of the way of reform; hence, it is our important duty, to send the truth every where, to the destitute.

12. V. Such is the darkness of the mind of man, and they are so obstinately bent on doing wrong, that we can hope for little success in this mode of benevolence, without the assistance of a higher power. God has promised to grant this assistance, in answer to effort.

#### DOMESTIC ECONOMY.—No. I.

1. Every farmer and mechanic should keep a blank book, and put down in it each day, the amount of money he pays out, and what he pays it out for; and also the amount of money he may receive daily, specifying who he receives it from, and what for. This is practised by only a few farmers or mechanics. They generally trust to the memory, and after the business has run on for some time, they "jump accounts," for they can not settle in any other way, not having noted down the "debts" and "credits" as they should have done.

2. If they will keep a blank book and daily write what they owe and what they trust others with, they can settle at any time fairly and in a just manner for both parties. Hard thoughts and lawing frequently arise from trusting business to the memory. Much expense could be saved if people would do the business right at the time.

3. Every person should know at the end of every year how much it has cost him to live, and how much also he has earned during the time. I know of some farmers who put down every cent of expense and every cent earned; and they can tell at the end of the year how much they have lost, or how much they have gained. This way of living prevents them from running into debt, and it prevents extravagance.

4. The best architecture of farmhouses, of barns and other outhouses, should be studied by the young agriculturist. Convenience, security and protection of the stock, should be studied in the location and structure of the farm buildings. We often see the fences around the barn and the house thrown down by the cattle, and the whole stock allowed to roam in every direction, through the garden and over the grain and the meadows, during the whole feeding time of fall and spring.

5. And we often see the hog pen between the road and the house, and the barn on the other side of the road directly opposite to the house. These objects should be placed in the field directly back of the dwelling. Why it is that some farmers will have the hog pen and the barnyard immediately under the windows and door of their dwelling I could never imagine! The cattle are permitted to run around the house, and in the dooryard, and bite off and tread down the young trees, and the pigs are permitted to trouble the kitchen door, and to upset the feed barrel, and to root up the garden! But I have never been able to tell why this was so.

6. There is much to learn and much to correct. No other man should be so observing—so familiar with nature, in all her silent, wonderful operations—so well acquainted with every department of natural science, as the FARMER. NATURE and the FARMER work together—for the same object—in the same workhouse—and with the same tools and materials. Nature is struggling with all her great energies to feed and bless the human race; and to aid her is the work of the farmer. But he will be a poor help, unless he understands her mode of operation.

7. At present how deficient is the farmer's education! He does not learn that which makes his profession profitable and honorable! Farming, in too many instances, is merely **BLIND IMITATION!**—thoughtless, unproductive toil—the slavish delving of the hands, without the delights or the aid of the intellect! This must be so when there is no science to guide; when, in their only education, the children learn nothing of their profession! Then let *that* be taught in the common school, which will make farming *delightful, honorable and profitable.*

#### PRACTICAL CHEMISTRY.

1. Caloric is a very thin, subtil fluid. It can not be seen, and is known only by the sense of touch. It is the cause of all our feelings of warmth, or heat. Its particles repel each other; that is, they have a tendency to separate and fly off. It is imponderable, which means, it has no weight. A body is no heavier when it is hot, or what is the same thing, full of caloric, than when it is cold.

2. It is found in all substances: in ice, in stones, in wood, in metals, in water, and in air. Every thing contains some caloric. A liquid contains more caloric than a solid, and the aeriform substances, such as air, vapour, and the gases, contain more caloric than the liquid substances. The more caloric a substance has, the less solid it is, except clay and a few other bodies.

3. The attraction of cohesion makes solids. Caloric, it will be remembered, is an opposing power to cohesion, and therefore makes liquids. Every solid substance on the earth might be changed into a liquid or vapour by infusing into it sufficient caloric. If we lay a piece of ice on the stove, the caloric soon changes it into water, and then into vapour.

4. Caloric is communicated from one body to another. If we put the hand on a hot body, caloric passes from it into the hand, and causes the feeling of warmth; when we touch a body colder than the hand, the caloric goes from the hand into the body. Caloric desires to be in all bodies in an equal degree, and therefore goes from object to object, when bodies are brought together. If we throw a hot ball into a pail of water, the large quantity of caloric in the ball goes off immediately into the water, and in a short time the water and ball have an equal temperature.

5. Caloric passes through some bodies with great rapidity, while through other bodies it passes slowly. It goes speedily through an iron rod, so that we can not

touch the hand within a foot of the heated end; but it goes so slowly through glass that we can take hold of a glass rod within three inches of the melting end. Hence, some bodies are called good conductors of heat, or of caloric, and others bad conductors. Iron is a good conductor; glass, stones, wood and charcoal are bad conductors.

6. If we take a piece of wire, and a pipe stem of equal length, and put a piece of wax on one end of each, and place the other ends in the fire, the wax on the wire will melt directly, while the wax on the pipe stem is no warmer than when first put there—the wire being a good, and the clay a bad conductor of heat. Among the metals, gold is the best conductor of heat, platinum next, silver next, copper next—then iron, zinc, tin, lead, marble, &c.

7. Silks, woollens, and furs are bad conductors of heat, and they are for this reason worn in winter, that we may retain the heat of the body as far as possible—the body being warmer in winter than the surrounding air, it is wise to keep within us as much of our own caloric as we can. In summer we wish to let the heat of the body pass off, and should at this season wear those materials that are good conductors of heat, such as cotton, linen, &c.

8. Air is a bad conductor of caloric. On this account a thick blanket is not as warm as a quilt; air being between the two outside pieces and in the cotton. The more open or porous a body is, the less its conducting force. Animals living in cold regions are covered with fine furs which almost prevent the heat's escaping from the body; while those living in warm parts are covered with coarse, thin hair, offering no obstacle to the free escape of heat.

9. Bricks, being bad conductors of heat, are frequently heated and wrapped in a cloth, and used for keeping the feet warm in cold weather; but a heated piece of plank is still better, because wood does lose caloric as easily as brick.

10. Black is a better conductor of heat than white. Heat is reflected by white but passes through black. Take a piece of black woollen cloth, and another of the same size and quality of white, and lay them upon the snow, when the sun is shining. In a few hours the black will be found to have sunk below the surface of the snow, while the white will remain on the surface. The black cloth lets the rays of caloric pass through it and melt the snow beneath, while the white reflects the caloric.

11. When we go into the sun in summer it is wise to wear a whitish dress—the white, turning the rays of the sun away from us, will make the heat less oppressive. In winter by wearing black, the rays of the sun enter the clothing and give warmth to the person.

12. There are six sources of caloric: viz., the sun's rays, combustion, friction, the mixture of different substances, electricity and galvanism. The sun is the great fountain of heat, and thus of life. Caloric comes from the sun at the rate of 200,000 miles in a second of time. It warms and thins the frozen juices of the plants in the spring, and causes the sap to circulate through the trunks and branches of the trees.

#### MECHANICS—No. I.

Tutor—George—Henry.

1. T. Now, my young friends, if you have a mind, I will tell you something about metals.

G. Pray do, Sir.

H. Yes; I should like it of all things.

T. Well then. First let us consider what a metal is. Do you think you should know one from a stone?

2. G. A stone! Yes; I could not mistake a piece of lead or iron for a stone.

T. How would you distinguish it?

G. A metal is bright and shining.

T. True, brilliancy is one of the qualities of metals. But glass and crystals are also very bright.

3. H. But we can see through glass, and not through a piece of metal.

T. Right. Opacity, or a want of transparency, is generally esteemed one of the distinguishing characteristics of metals.—Gold, however, when beaten very thin, transmits a green light.

G. Metals are very heavy too.

4. T. All metals were thought to be so till very lately, but some very light metals have been discovered within these few years, so that weight is not now considered as one of their characteristics. Well, what else?

G. Why, they will bear beating with a hammer, which a stone will not, without flying in pieces.

5. T. Yes; that property of extending or spreading under the hammer is called *malleability*; and another, like it, is that of bearing to be drawn out into wire, which is called *ductility*. Metals have both these, and much of their use depends upon them.

G. Metals will melt too.

6. H. What! will iron melt?

T. Yes; all metals will melt, though some require greater heat than others. The pro-

perty of melting is called *fusibility*. Do you know any thing more about them?

G. No; except that they are brought out of the ground, I believe.

7. T. That is properly added, for it is that circumstance which makes them rank among *fossils* or minerals. To sum up their character, then, metals are brilliant, opaque, malleable, ductile, and fusible minerals.

G. I am afraid I can hardly remember all that.

T. The names may slip from your memory, but you cannot see metals used at all, without being sensible of the things.

8. G. But what are ores? I remember seeing a heap of iron ore which men were breaking with hammers, and it looked very like a heap of stones.

T. The ore of a metal is the state in which it is generally met with in the earth, when it is so mixed with stony and other matters, as not to show its proper qualities as a metal.

H. How do people know it then?

9. T. By experience. It was probably accident, which in the early ages, discovered that certain fossils, by the force of fire, might be made to yield a metal. The experiment was repeated on other fossils; so that, in course of time, all the different metals, and all the different forms in which they lie concealed in the ground, were found out. This branch of knowledge is called *mineralogy*, and a very important science it is.

10. G. Yes, I suppose so; for metals are very valuable things. I have heard that a great deal of money is made every year from the mines in Wales.

11. T. The mineral wealth of some countries is much superior to that of the products above ground, and the revenue of many kings is in a great measure derived from their mines. But I suppose I have told you as much as you can remember; in our next lesson we shall resume the subject, when I shall give you an account of some of the principal metals.

#### SCIENCE OF GOVERNMENT.—No. I.

##### POLITICAL DEFINITIONS.

1. *Sovereignty*,—is the highest power!

Thus, for a state, or nation, to be sovereign, it must govern itself, without any dependence upon another power. It must have no superiors. But when a community, city, or state makes part of another community or state, and is represented with foreign powers by that community or state of which it is a part, then it is not sovereign.

2. *Government*,—is the whole body of constituted authority. Thus, from the very ori-

gin of society, one portion of the people have exercised authority over the rest. The authority thus exercised is called the *government*, and it derives its just powers from the consent of the governed.

3. *Law*,—is a rule of action. In this general sense, it signifies the rules of all action, and constitutes alike the rules by which the heavenly bodies move, nations are governed, and the plants grow. *Law*, in a political sense, however, signifies a rule of human action. In a particular state, "it is a rule prescribed by the supreme power in the state, commanding what is right, and forbidding what is wrong."

4. *Constitution*,—is the constituted form of government. It is the *fundamental law*; the regulation which determines the manner in which the authority vested in government is to be executed. It is delineated by the hand of the people.

5. *A Despotism*,—is that form of government "in which a single individual, without any law, governs according to his own will and caprice." An example of this kind of government may be found in Turkey, where the sultan exercises all the powers of sovereignty; with respect to the general administration of public affairs; but, even there, he is limited by certain customs and rules, as it respects private justice.

6. *A Monarchy*,—is that form of government in which a single individual governs, but according to established laws. The governments of Austria, Prussia, France, and England are examples of this form of government. The limitations placed upon the monarch are, however, very different in degree: thus, the power of the Prussian monarch is very great, while that of the king of England is so small as scarcely to be felt. The latter acts through his ministers, who are held responsible to the representatives of the people, and can maintain their power only so long as they can satisfy public opinion.

7. *A Republic*,—is that form of government in which the whole people, or only a part of the people, hold sovereign power. The people of Athens were formerly an example of the first kind of republic, and governed themselves by primary assemblies of the people, a mode which could only be adopted where the people were chiefly citizens, and inhabitants of one capital city. In modern times the United States are an example of the same kind of republic, with this difference, that the people do not govern themselves by their assemblies, but by delegates, or through the principle of representation. An example of the second kind of republics may be found in



Venice, Genoa, and the Dutch States, in all of which a *part* of the people, either absolutely or limitedly, exercised the authority. The difference between these kinds of republics will be understood from the following definitions.

8. A *Democracy*,—is when the sovereign power is in the hands of the *whole* people. The term democracy is derived directly from the Greek word *Demos*, signifying the *people*.

9. An *Aristocracy*,—is when the sovereign power is in the hands only of a *part* of the people. This word is likewise of Greek derivation. It is compounded of the adjective *Aristos*, signifying *best* or *wisest*, and *Kratos*, signifying power or strength; the whole word signifies that form of government in which a few of the wisest and best govern. Both *Democracies*, and *Aristocracies* are *Republics*.

10. A *Party*,—is any number of persons confederated, by a similarity of objects and opinions in opposition to others. An illustration of this may be found anywhere. In England, the whigs and tories are two great parties, which have long divided the nation. In France, during the revolution, the jacobins and royalists were violently opposed. On the continent of Europe generally, there are the parties of the *liberals* and *absolutists*. In the United States, the federal and democratic parties divided the country till the termination of the last war.

11. A *Faction*,—is any number of persons, whether majority or minority, confederated by some common motive, in opposition to the rights of other persons, or to the interests of community. The difference between *party* and *faction* then is, that the former is a difference of principle, and is founded on a general or public object; the latter may have any motive, however personal or selfish, and be directed towards any end, however little connected with the public welfare. Thus, two divisions of the people differing as to how the government shall be administered, are *parties*; but a section whose object is to keep one portion of the people from the enjoyment of power, or to aggrandize an individual, or to divide among themselves all the offices of state, is a *faction*.

12. *Legislature*,—is the law-making power. Thus, in a Republic, it is that branch of the government in which the people have vested the power to make laws.

13. *Congress*,—is a meeting for the settlement of national affairs, whether relating to one or more nations. In the United States, the national legislature is called the Congress; in Europe, a conference of different powers

by their ministers, is called a Congress; as the meeting of ambassadors at Laybach was called the Congress of Laybach.

14. *Legislative*,—that which relates to law-making.

15. *Executive*,—that which relates to the execution of the laws. Thus, the chief officer of the government, whether he be called King, President, or governor, is denominated the *Executive*,—for on him, in most cases, the constitution devolves the duty of *executing the laws*.

16. *Judicial*,—that which relates to the administration of justice. Thus, *judicial duties* are those which devolve upon the judges, who have to decide upon what is law, and to adjudicate between private rights.—*Mansfield*.

#### NATURAL PHILOSOPHY—No. I.

##### 1. What is Natural Philosophy?

Natural Philosophy explains the reasons of things, and tells us about the properties of bodies.

What are *bodies*?

Every thing we see is a *body*.

You have learned about the attraction of cohesion—is it found in *all* bodies?

It is; but it is stronger in some bodies, than it is in others.

##### 2. In what bodies is it the strongest?

In *hard* bodies.

Do we call hard bodies by any other name?

We call them *solid* bodies, or *solids*.

Can you mention some solid bodies?

Wood, and stone, and iron, are solid bodies.

Are cork and sponge solid bodies?

They are.

3. But they are *soft* bodies—are *soft* bodies solids?

They are.

You said *hard* bodies are solids—how then can *soft* bodies be solids?

Every body that is not *fluid* is *solid*.

What bodies are fluids?

Water, milk, and oil are called fluids.

4. How do you know that cork and sponge and other soft bodies are not *fluids*?

I can make sponge and cork into any shape I please, and they will remain in that shape, but water and other fluids will not.

If I should place a solid and a fluid upon the table, how could you tell which was a *solid*?

The solid body would remain where you put it.

5. What would the fluid do?

It would flow on the table, or down from it on the floor.

What do you mean by a fluid?

Something that *flows*, and will not keep its place, unless it is confined in a vessel.

Do all fluids flow like water?

Not all; there are some fluids that are different from water or oil.

6. Then how many kinds of bodies are there?

Two.

What are their names?

*Solids* and *fluids*.

Why are some solids *hard*, and other solids *soft*?

Because the attraction of cohesion is stronger in hard bodies than it is in soft bodies.

7. What do you mean the attraction of cohesion?

The attraction of cohesion is the power of sticking together which God has given to little particles of bodies.

What do we call *hard* solid bodies?

We call them *dense* bodies.

What is *density*?

Hardness.

What bodies are *dense*?

Those bodies are dense whose particles are close together.

8. Mention some dense bodies.

Iron is very dense and so is wood.

Which has the greatest density, the iron or the wood?

Iron has the greatest density.

Why has iron greater density than wood?

Because its particles are closer together than the particles of wood are.

9. How do you know they are?

It does not take so much strength to cut wood, as it would to cut iron.

What do we call *soft* solid bodies?

We call them *rare* bodies?

What is *rarity*?

Softness or thinness.

What bodies are *rare*?

Those bodies are rare, whose particles are not very close to each other.

10. Mention some rare bodies.

Cork and sponge are rare bodies.

Which has the greatest rarity, cork or sponge?

Sponge is the rarest.

Why is sponge rarer than cork?

Because its particles are not attracted or drawn to each other as closely as the particles of cork are.

11. How do you know they are not?

Because sponge is more easily separated than cork is.

When you say the fog is very dense, what do you mean?

I mean the fog is very thick, and its par-

ticles are so very near each other, that we cannot see through them.

12. Is steam a solid or a fluid?

Steam is a fluid.

How do you know?

Because it does not keep its place, and it cannot be made into any shape.

13. Can the air be made into any shape or figure?

It cannot.

Then is the air a solid or a fluid?

The air is a fluid.

Does the air flow to the ground like water?

It does not.

14. Why does it not if it is a fluid?

It is too light to fall to the ground.

Where is the air?

It is all around us—it is what we breathe.

Then we can breathe a fluid, can we not?

We can, and our breath itself is a fluid.

But are air and breath such fluids as water?

No; they are a different kind of fluid.

15. What is the name given to such fluids as water and oil?

They are called *liquids*, or *running fluids*.

What is the name of such fluids as breath and vapor?

They are called *aeriform fluids*.

16. What is the meaning of *aeriform*?

*Aeriform* means *air-form*.

Why are they called *aeriform*?

Because they are *like air*.

#### PUBLIC OFFICERS.—No. 1.

1. The first and highest public officer in our government is the President of the United States. Before a man can be made President he must be thirty-five years old, must have been born in the United States and lived in them at least fourteen years.

2. The President is elected for four years, after which the people can elect him again, or as many times as they see fit. The most of our Presidents have been elected twice.

3. The President is chosen by men called "Electors." These men are appointed for the purpose of choosing a President; and they are appointed in a way the Legislature (the State Government) of each State shall direct. Each State is allowed the same number of Electors that it has Senators and Members of the House of Representatives.

4. No man can be appointed an Elector, that is, one who chooses a President, if he holds any office under the United States, or is a member of Congress. The "Electors" of each State, after being chosen, meet at some place in their own State, and then vote by ballot, that is by tickets, for President. These

tickets must have written on them distinctly the name of the man the voter wishes to make President.

5. The name of each man who has been voted for by the Electors, and the number of votes he has received is then sent, in a sealed package, to the President of the Senate of the United States. This is done by each State.

6. Then the President of the Senate opens these packages sent from each State, in the presence of both houses of Congress, and the votes for President are counted. The man that has the greatest number of votes is declared President of the United States, if that number is more than half of all the Electors in the several States.

7. If it is found that no one has such a majority it is, then, the duty of the House of Representatives to choose a President. The House must choose one of the three persons who had the greatest number of votes from the Electors. Each member of the House does not vote, but all the members of one State give in but one vote; that is, each State puts in one vote. So that man is chosen who has the greatest number of States voting for him.

8. If the President dies or is removed from office before his term expires the Vice-President performs the duties of President. The President receives a salary yearly, which can not be lessened or increased during the term for which he has been elected. That salary is now twenty-five thousand dollars.

9. The President is the chief commander of the army and the navy; he also has the command of the militia when called into service. The President has power to grant pardons for all offences against the United States, except impeachments. He has power to make treaties, or agreements, with other nations, if two-thirds of the Senate consent to the treaty.

10. The President has the sole power to nominate to the Senate all ambassadors, public ministers, consuls, judges of the Supreme Court, members of the cabinet, and all other officers of the United States, whose appointment is not fixed by law. The Senate can accept of the nomination or reject it. If they accept, the man nominated by the President is appointed to office; if the Senate reject the nomination, the President has to name another person.

11. Congress has given power to the President to appoint some of the lower officers, without the consent of the Senate. The President is obliged frequently to give Congress information of the state of the Union, and recommend to their notice such mea-

sures as he may think expedient. The President can call congress together whenever he chooses; and he can adjourn Congress if it can not agree to do so itself.

12. The President takes care that all the laws are executed, and has the power to commission officers for this purpose. We will go no further with this subject in this number. Our readers will see how useful and important our paper can be made.

#### THE LAW.

1. The spirit of the law is all equality and justice. In a government based on true principles, the law is the sole sovereign of a nation. It watches over its subjects in their business, in their recreation and their sleep. It guards their fortunes, their lives, and their honors.

2. In the broad noonday and the dark midnight it ministers to their security. It accompanies them to the altar and festal board. It watches over the ship of the merchant, though a thousand leagues intervene; over the seed of the husbandman abandoned for a season to the earth; over the studies of the student, the labors of the mechanic, the opinions of every man.

3. None are high enough to offend it with impunity, none so low that it scorns to protect them. It is throned with the king, and sits in the seat of the republican magistrate; but it also hovers over the couch of the lovely, and stands sentinel scrupulously preserving to the felon whatever right he has not forfeited.

4. The light of the law illumines the palace and the hovel, and surrounds the cradle and the bier. The strength of the law laughs fortresses to scorn, and spurns the intrenchments of iniquity. The power of the law crushes the power of man and strips wealth of unrighteous immunity. It is the thread of Dædalus, to guide us through the labyrinths of cunning. It is the spear of Ithuriel to detect falsehood and deceit.

5. It is the faith of the martyr to shield us from the fires of persecution—it is the good man's reliance—the wicked one's dread—the bulwark of piety—the upholder of morality—the guardian of right—the distributor of justice—its power is irresistible—its dominion indisputable. It is above us, and around us, and within us—we can not fly from its protection—we can not avert its vengeance.—*Lit. Messenger.*

#### NOTICE.

Those who may wish to purchase the school books we have published, or may publish, can procure them of E. H. Pease, No. 82 State-street, Albany. We give this notice, as we are about to move to New-York city, and it may be more convenient for some to purchase our books in Albany.



